

What is claimed is:

- 1 1. A method comprising:
2 receiving frames partitioned into multiple timeslots;
3 reading a timeslot lookup table including an entry that
4 specifies an assignment corresponding to a timeslot; and
5 storing data associated with a particular timeslot in a
6 memory location based on the assignment, with data from a
7 particular channel included in timeslots having a data
8 assignment stored in contiguous memory locations.
- 1 2. The method of claim 1 wherein the assignments include
2 a voice timeslot, an unassigned timeslot, and a data timeslot.
- 1 3. The method of claim 1 further comprising
2 calculating the number of timeslots associated with a set
3 of data timeslots.
- 1 4. The method of claim 3 wherein calculating the number
2 of timeslots includes locating a start-point and an end-point
3 of consecutive channels in a frame having the same assignment.
- 1 5. The method of claim 3 wherein calculating the number
2 of timeslots includes locating a start-point and an end-point
3 of a set of data non-consecutive channels in a frame having
4 the same assignment.

1 6. The method of claim 2 wherein timeslots having a
2 voice assignment or an unassigned timeslot separate the
3 timeslots having a data assignment in the frame.

1 7. The method of claim 2 wherein storing the data
2 comprises:
3 storing the data included associated with voice timeslots
4 in a first memory;
5 storing the data associated with data timeslots in a
6 second memory; and
7 discarding the data associated with unassigned timeslots.

1 8. The method of claim 2 wherein storing the data
2 comprises:
3 storing the data associated with voice timeslots in a
4 first subset of locations in the memory;
5 storing the data associated with data timeslots in a
6 first subset of locations in the memory; and
7 discarding the data associated with unassigned timeslots.

1 9. The method of claim 1 further comprising storing the
2 frames associated with a voice assignment in a memory in the
3 order the frames are received.

1 10. The method of claim 1 further comprising storing the
2 frames associated with a voice assignment such that all voice
3 assignment frames from a channel for a particular frame are
4 stored contiguously.

1 11. A computer product or article of manufacture
2 configured to:
3 receive frames partitioned into multiple timeslots;
4 read a timeslot lookup table including an entry that
5 specifies an assignment corresponding to a timeslot; and
6 store data associated with a particular timeslot in a
7 memory location based on the assignment, with data from a
8 particular channel included in timeslots having a data
9 assignment stored in contiguous memory locations.

1 12. The computer product or article of manufacture of
2 claim 11 wherein the assignments include a voice timeslot, an
3 unassigned timeslot, and a data timeslot.

1 13. The computer product or article of manufacture of
2 claim 11 further configured to calculate the number of
3 timeslots associated with a channel in a frame having the same
4 assignment.

1 14. The computer product or article of manufacture of
2 claim 12 further configured to store the data included in a
3 set of data in contiguous timeslots.

1 15. The computer product or article of manufacture of
2 claim 14 further configured to
3 store the data included associated with voice timeslots
4 in a first memory;
5 store the data associated with data timeslots in a second
6 memory; and
7 discard the data associated with unassigned timeslots.

1 16. The computer product or article of manufacture of
2 claim 12 further configured to:
3 store the data associated with voice timeslots in a first
4 subset of locations in the memory;
5 store the data associated with data timeslots in a first
6 subset of locations in the memory; and
7 discard the data associated with unassigned timeslots.

1 17. A computer program product, tangibly embodied in an
2 information carrier, for executing instructions on a
3 processor, the computer program product being operable to
4 cause a machine to:
5 receive frames partitioned into multiple timeslots;

6 read a timeslot lookup table including an entry that
7 specifies an assignment corresponding to a timeslot; and
8 store data associated with a particular timeslot in a
9 memory location based on the assignment, with data from a
10 particular channel included in timeslots having a data
11 assignment stored in contiguous memory locations.

1 18. The computer product of claim 17 wherein the
2 assignments include a voice timeslot, an unassigned timeslot,
3 and a data timeslot.

1 19. The computer product of claim 17 further configured
2 to calculate the number of timeslots associated with a set of
3 data timeslots.

1 20. The computer product of claim 18 further configured
2 to store the data included in a set of data in contiguous
3 timeslots.

1 21. The computer product of claim 20 further configured
2 to
3 store the data included associated with voice timeslots
4 in a first memory;
5 store the data associated with data timeslots in a second
6 memory; and
7 discard the data associated with unassigned timeslots.

1 22. The computer product of claim 18 further configured
2 to:
3 store the data associated with voice timeslots in a first
4 subset of locations in the memory;
5 store the data associated with data timeslots in a first
6 subset of locations in the memory; and
7 discard the data associated with unassigned timeslots.

1 23. A system comprising:
2 a router including a processor configured to:
3 receive frames partitioned into multiple timeslots;
4 read a timeslot lookup table including an entry that
5 specifies an assignment corresponding to a timeslot; and
6 store data associated with a particular timeslot in a
7 memory location based on the assignment, with data from a
8 particular channel included in timeslots having a data
9 assignment stored in contiguous memory locations.

1 24. The system of claim 23 wherein the processor is
2 further configured to calculate the number of timeslots
3 associated with a channel in a frame having the same
4 assignment.

1 25. The system of claim 24 wherein the processor is
2 further configured to store the data included in a set of data
3 in contiguous timeslots.

1 26. The system of claim 25 wherein the processor is
2 further configured to:
3 store the data included associated with voice timeslots
4 in a first memory;
5 store the data associated with data timeslots in a second
6 memory; and
7 discard the data associated with unassigned timeslots.

1 27. The system of claim 25 wherein the processor is
2 further configured to:
3 store the data associated with voice timeslots in a first
4 subset of locations in the memory;
5 store the data associated with data timeslots in a first
6 subset of locations in the memory; and
7 discard the data associated with unassigned timeslots.

1 28. A finite state machine comprising instructions to
2 cause the state machine to:
3 scan a timeslot lookup table, the timeslot lookup table
4 including assignments associated with timeslots of a
5 partitioned frame;
6 determine the start of a channel of data in the frame;
7 and
8 determine the end of the channel of data in the frame.

1 29. The finite state machine of claim 28 further
2 comprising instructions causing the finite state machine to
3 calculate the length of a channel based on the determination
4 of the start of the channel and the end of the channel.

1 30. The finite state machine of claim 28 further
2 comprising instructions causing the finite state machine to
3 store the length of a channel in a memory.

1